CORRES. CC: TROL OUTGOING LTR NO.

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EG&G ROCKY FLATS

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MARAL, M.E.		
URLINGAME, A.H.	х	
JUSBY, W.S.		
RANCH, D.B.	-	
ARNIVAL, G.J.		
AVIS, J.G.	_	
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LOVER, W.S.	<u> </u>	
OLAN, P.M.	Ь_	<u> </u>
ANNI, B.J.		L
IARMAN, L.K.		
EALY, T.J.		
EDAHL, T.		
IILBIG, J.G.		
IUTCHINS, N. M.		Г
ACKSON, D.T.	Г	
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ARX, G.E.		┢
AcDONALD, M.M.	 	├
ICKENNA, F.G.	 	
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forgan, R.V.		<u> </u>
OTTER, G.L. IZUTTO, G.L.	L	
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ising, T.L.		
SANDLIN, N.B.		
CHWARTZ, J.K.		
ETLOCK, G.H.		
TEWART, D.L.		
OBIN, P.M.	X	
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N REPLY TO RFP CC NO:

ACTION ITEM STATUS OPEN CLOSED PARTIAL

TR APPROVALS:

₹F-46469 (Rev. 07/94)

ORIG & TYPIST INITIALS

August 19, 1994

EG&G ROCKY FLATS, INC.

94-RF-08680

Robert H. Birk **Environmental Restoration Division** DOE/RFFO

GREAT WESTERN RESERVOIR SAMPLING - MSB-039-94

ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

Action: None Required

As you know, preliminary results of the evaluation of potential ecotoxicological risks of polychorinated biphenyl (PCB) contamination in the Operable Unit (OU) 6 Walnut Creek Priority Drainage indicate that elevated PCB concentrations were detected in sediments and in specific biota of certain A- and B-Series Ponds. The A- and B-Series Ponds are situated in the drainages of the North and South Walnut Creeks, respectively, which converge east of the A-Series Ponds to form the main stem of Walnut Creek. Prior to 1990, the A- and B-Series Ponds were designed to discharge into the Walnut Creek drainage. Because the Walnut Creek drainage intermittently flows into Great Western Reservoir (OU 3 - Individual Hazardous Substance Site (IHSS) 200) and the A- and B-Series Ponds are known historically to have discharged into Walnut Creek, the potential exists for sediments and/or specific biota in Great Western Reservoir to be impacted by PCB contaminants from the OU 6 ponds.

OU 3 has taken a pro-active measure to provide a preliminary evaluation of the potential for PCBs in Great Western Reservoir. It is well known that PCBs are highly hydrophobic and tend to partition into biota and onto particulate matter such as sediments and soils. Previous studies have shown that PCBs may be detected in fish samples but not in sediment samples collected from the same body of water. Based upon this information and the opportunity to use resources already in place, EG&G Rocky Flats, Inc., has initiated a fish sampling event at Great Western Reservoir that is expected to be completed during the week ending August 19, 1994. Fish species will be collected that are known to have direct contact with lake sediments (bottom feeders) using a gill net. The City of Broomfield has been notified of the fish sampling event and the methods to be utilized for collecting the fish samples. Sediment samples may or may not be collected at a later time based on the results of the preliminary fish sampling investigation.

In response to a recent Department of Energy (DOE)/Rocky Flats Field Office (RFFO) request, EG&G is currently making arrangements to collect fish samples in Standley Lake and Mower Reservoir for laboratory analysis of PCBs. EG&G will also consider sampling other upstream drainages deemed appropriate for collecting biota samples for PCB analysis.

EG&G reviewed previous OU 6 PCB investigations. A brief summary is provided below. According to information presented in Addendum No. 1 of the OU 6 "Additional Pond Sediment Investigations" report dated February 11, 1994, sediment samples were collected from multiple locations within each of the A- and B-Series Ponds and analyzed for PCB congeners. Only Arochlor 1254 and 1260 were detected in the sediment samples.

Robert H. Birk August 19, 1994 94-RF-08680 Page 2/2

The analytical results presented in this report indicate that PCBs were not detected in sediment samples collected in the terminal ponds A-3, A-4 and B-5. The highest PCB concentrations were detected in the most upstream ponds in each drainage. The reported range of PCB concentrations detected in sediment samples collected from the A-Series Ponds is 0.16 to 0.67 milligrams per kilogram (mg/kg). The reported range of PCB concentrations detected in sediment samples collected from the B-Series Ponds is 0.16 to 6.68 mg/kg. The reported laboratory detection limit for PCB concentrations in the sediment samples is 0.16 mg/kg. PCBs were not detected in all sediment samples collected from the A- and B-Series Ponds.

To further access the ecotoxicological effects of these results, an additional biota sampling event was conducted during May through July 1994 for the OU 6 ponds. At this writing, the final analytical results were not available for review by the OU 3 Management team. We have been informed that these results will be received from the laboratory by August 24, 1994.

EG&G reviewed a summary of the historic timelines discussing construction, modifications, and incidents pertaining to the A- and B-Series Ponds (Spill Prevention Control Countermeasures Best Management Practices Plan, Appendix 2, dated September 1992). The summary indicated that any PCB releases into the A-Series Ponds would likely have occurred prior to 1972 and that any releases into the B-Series Ponds would have likely occurred prior to 1980.

If it is necessary to collect sediment samples from Great Western Reservoir, the following estimated costs will be incurred based on collecting six (6) deep core samples for analysis of PCBs:

Sample Collection Survey Sample Sites Laboratory Analysis

\$9,000

2.000 (Pesticides/PCBs)

Total

\$11,700

Please call me at extension 8519 if you have any questions or require additional information.

Mark S. Buddy Group 1 Closures

Environmental Restoration Program Division

EG&G Rocky Flats, Inc.

MSB:tjr

Orig. and 1 cc - R. Birk

Attachment: As Stated